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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/675,563	09/30/2003	John E. Hoffmann	2479.2180-001	9987
21005	7590	02/09/2005	EXAMINER	
HAMILTON, BROOK, SMITH & REYNOLDS, P.C.			TRAN, CHUC	
530 VIRGINIA ROAD			ART UNIT	
P.O. BOX 9133			PAPER NUMBER	
CONCORD, MA 01742-9133			2821	

DATE MAILED: 02/09/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/675,563

Applicant(s)

HOFFMANN ET AL.

Examiner

Chuc D. Tran

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 September 2003.
 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
 5) ☒ Claim(s) 14-26 is/are allowed.
 6) ☒ Claim(s) 1-13 and 27 is/are rejected.
 7) ☐ Claim(s) _____ is/are objected to.
 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
 10) ☒ The drawing(s) filed on 26 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☐ All b) ☐ Some * c) ☐ None of:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
 * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
 Paper No(s)/Mail Date 10/21/04.
 4) ☐ Interview Summary (PTO-413)
 Paper No(s)/Mail Date. _____.
 5) ☐ Notice of Informal Patent Application (PTO-152)
 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-11, 13 and 27 are rejected under 35 U.S.C. 102(e) as being anticipated by Greer et al (USP. 2003/0146876).

Regarding claim 1, Greer et al disclose a method for operating a directional antenna in a Wireless Local Area Network (WLAN), comprising:

- causing a Medium Access Control (MAC) layer to provide metrics associated with respective beam angles of the directional antenna (Page 2, Col. a, Line 5) (Page 6, Col. b, Line 14); and
- based on the metrics, steering the directional antenna to a selected direction associated with an Access Point (AP) (Page 7, Col. b, Line 2).

Regarding claim 2, Geer et al disclose that causing the MAC layer to determine the metrics as a function of received energy by the directional antenna in the beam angles (Page 3, Col. b, Line 8).

Regarding claim 3, Geer et al disclose that causing the MAC layer to transmit a signal to at least one access point and to measure a response from said at least one access point (Page 4, Col. b, Line 26).

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Regarding claim 4, Geer et al disclose that the metrics includes receiving a table of previously calculated metrics from the MAC layer (Page 5, Col. b, Line 43).

Regarding claim 5, Geer et al disclose that the metrics includes causing the MAC layer to calculate the metrics as a function of a beacon signal (Page 7, Col. b, Line 57).

Regarding claim 6, Geer et al disclose that a distribution system coupled to the access point (Page 1, Col. b, Line 41) (Page 2, Col. b, Line 49).

Regarding claim 7, Geer et al disclose that the metrics occurs before or after associating with the distribution system (Page 5, Col. b, Line 35).

Regarding claim 8, Geer et al disclose that the beam angle of the directional antenna with causing the MAC layer to provide the metrics (Page 6, Col. a, Line 14).

Regarding claim 9, Geer et al disclose that the beam angle includes an omni-directional beam angle (Page 6, Col. a, Line 12).

Regarding claim 10, Geer et al disclose that the metrics correspond to beam angles relative to one access point (Page 6, Col. a, Line 12).

Regarding claim 11, Geer et al disclose that the metrics correspond to beam angles relative to multiple access points (Page 2, Col. a, Line 49).

Regarding claim 13, Geer et al disclose that used in an 802.11, 802.11 a, 802.11 b, or 802.11 g network (Page 2, Col. a, Line 25).

Regarding claim 27, Geer et al disclose an apparatus for operating a directional antenna in a Wireless Local Area Network (WLAN), comprising:

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- means for causing a Medium Access Control (MAC) layer to provide metrics associated with respective beam angles of the directional antenna (Page 2, Col. a, Line 5) (Page 6, Col. b, Line 14); and

- means for steering the directional antenna based on the metrics to a selected direction associated with an Access Point (AP) (Page 7, Col. b, Line 2).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Geer et al in view of Proctor, Jr. (USP. 2003/0048770).

Regarding claim 12, Geer et al disclose a method for operating a directional antenna in a Wireless Local Area Network (WLAN) set forth in the claims except the metrics includes Received Signal Strength Indication (RSSI). Proctor, Jr. disclose a method of detection of signals comprising Received Signal Strength Indication (RSSI) (Page 3, Col. a, Line 34). Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Geer et al by using the Received Signal Strength Indication (RSSI) as taught by Proctor, Jr. The ordinary artisan would have been motivated to modify Geere et al in the manner described above determining and measuring a quality received signal metric as described in Proctor, Jr. (Page 3, Col. a, Line 34).

Allowable Subject Matter

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5. Claims 14-26 are allowed.
6. The following is an examiner's statement of reasons for allowance:

Regarding claim 14, the references of the Prior Art of record fails to teach or suggest the combination of the limitations as set forth in the claim: a Station Management Entity (SME) that cause a Medium Access Control (MAC) layer to provide metrics associated with respective beam angles of the directional antenna, and specifically comprising the limitation of an antenna controller unit coupled to the directional antenna that receives input based on the metrics from the SME and, in turn, causes the directional antenna to steer an antenna beam to a selected direction associated with an Access Point (AP).

Regarding claims 15-26 are allowable for the reason given in the claim because of their dependency status from the claim 14.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Citation of relevant Prior Art

Prior art Geer et al (US 2003/0146876) disclose multiple antenna diversity for wireless LAN.

Prior art Proctor, Jr. (US 2003/0048770) disclose method of detection of signals using an adaptive antenna in a peer to peer network.

Inquiry

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chuc D. Tran whose telephone number is (571) 272-1829. The examiner can normally be reached on M-F Flex hours.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Don Wong can be reached on (571) 272-1834. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

TC
February 6, 2005


WILSON LEE
PRIMARY EXAMINER